

ences, such as the nature of the soil, amount of vapor, clouds, altitude of the sun, &c. &c.

Pending nominations, Nos. 508 to 518, and new nomination No. 519, were read.

On motion of Mr. Peale the following resolution was considered and adopted: *Resolved*, That the Curators be authorized to make such selection as they may deem proper, of articles from the Cabinet of the Society, and place them at the disposal of the Chairman of the Committee on Curiosities, Relics, and Autographs, for the Sanitary Commission, as a loan for exhibition during the ensuing fair.

And the Society was adjourned.

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*Stated Meeting, March 18, 1864.*

Present, twenty-three members.

Judge SHARSWOOD, Vice-President, in the Chair.

Prof. William D. Whitney, a recently elected member, was introduced to the presiding officer and took his seat.

Letters announcing the transmission of publications were received from the Royal Academy at Lisbon, dated November 25th, 1863, and from the Engineer Department at Washington, March 17th, 1864.

Donations for the Library were announced from the Royal Academy at Lisbon, the Royal Society at Edinburgh, the British Meteorological Society, the Annales des Mines, the Boston N. H. Society, the Franklin Institute, Messrs. Blanchard and Lea, and the Engineer Department of the United States.

On motion of Mr. Barnes, Dr. Goodwin was appointed to prepare an obituary notice of the late President Hitchcock.

The Secretary read a letter from Prof. Wilson, of Toronto, offering for sale a new copy of the "Birds of Australia," costing originally £150, and never yet taken from its case.

Mr. Lesley presented for the Cabinet, a specimen ball of sea-grass, and described the manner in which multitudes of similar balls, of all sizes, are manufactured by the waves, upon the shores of Nice.

Mr. Lesley then read a communication, which he had received from Mr. R. Pearsall Smith, of Philadelphia, in reply to inquiries, which he had made, respecting the published county maps of the United States.

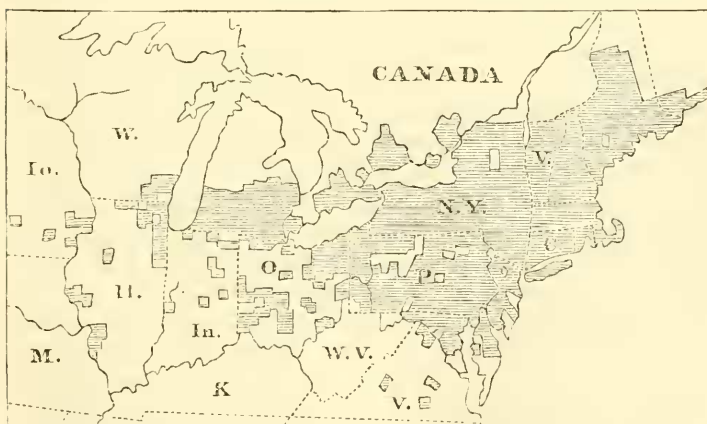
His own attention had been called to the subject anew, and very forcibly, by the difficulties he had lately encountered in obtaining a map of Cumberland County, at the county seat, Carlisle. At the last invasion of the State, preceding the battle of Gettysburg, the advance guard of the rebels swept the Great Valley clean of all its county maps; those of Franklin and those of Cumberland. The same fate befell those of Adams County. For a day or two, not a map of the seat of war was to be obtained at Harrisburg for the use of the Governor and his staff. General Couch had but a single copy at his headquarters. An order on Philadelphia could only be filled by sending out a special agent, who succeeded, at great personal risk, in procuring one or two of each county. Judge Watts, of Carlisle, informed me that the maps were torn hastily from the walls of the farmers' houses, and sent with the horses and other valuables for safety, over the North Mountain, into the Juniata Valley. The rebel visitation was very complete; he thought it likely that not a single house had been overlooked. The sack of the Valley would have been most disastrous, but for the want of rolling stock on the railroad. What they carried off was on their backs. The two engines and trains which took the Pennsylvania troops up to the front at Chambersburg, were telegraphed back so exactly at the right time, that they had passed Scotland Station but four minutes before the Rebel cavalry dashed in from the south to cut them off.

A rebel general is understood to have made a reconnoissance of these counties previous to the invasion under the guise of a map-peddler, and while selling some of a more general character, no doubt bought up county maps to be used in the invasion.

It is known that the bureau at Washington was robbed of many unique county maps before the rebellion broke out. When General McClellan advanced upon Richmond, but one copy of the map of Henrico County could be procured. The rebel leaders had secured,

also, all but one or two copies of Loudon and Jefferson and the few other Virginia counties of which maps had been executed. General Crawford informed me that on his advance to Culpeper, he was fortunate in securing two beautiful manuscript maps of that county; but for the long campaigns in Virginia, the utmost annoyance has been experienced for the want of maps. The mountain country of Virginia has never been mapped, with even the most distant approximation to topographical truth. The mountains of East Tennessee do not form so complicated a system as those of Western Virginia, but no map of their features worthy of the name is in existence yet. Even the large sheets of the seats of war issued for pressing and popular need from the United States Coast Survey Office, can scarcely effect a reduction of the principal errors. Nor can that mountain belt be mapped except by topographical geologists, on the plan pursued by the geologists of the Pennsylvania survey. It is to be hoped that on the return of peace, this greatly desired contribution to science, the extension of the Pennsylvania Appalachian Topography southward, will be made, and with an advantage not enjoyed by those who did the work in Pennsylvania, namely, with well-constructed county maps, done with an odometer, like those of the Northern States.

The number of these Northern county maps is now very great. Mr. Smith has kindly colored for me a map of the United States, to



show the parts covered by these odometer surveys. They are 300 in number. They have formed the basis of the recently published and very correct State maps of New York, Pennsylvania, and New Jersey.

But as the editions of the county maps are always small, seldom exceeding 1000 copies, and after one or two dozen extra copies have been struck off for the publisher, the stones are always destroyed, they go out of the market, and become extremely difficult to procure. In important cases special agents have to be despatched to the locality to purchase copies from the walls of the farmers' houses, at a high price.

It would be natural to expect to find complete sets of the county maps of each State in the archives of its capitol. Strange to say, none such is known to exist except at Albany. Stranger still, no set of these maps, no record of all this labor done, is to be seen at the Capitol of the Nation, neither in the Library of Congress, nor in the Bureau of the Interior, nor at the Bureau of the Coast Survey. A few of them, the number amounting perhaps to one-twentieth of the whole, are on file in the Engineer Department of the United States. And yet every day diminishes the chance of making up such a set. Within the last two months the editions of thirty have been exhausted.

In striking contrast to our own conduct, the British Government has possessed itself of a complete set of American county maps, by giving a standing order for each, as it appears, to be sent to the British Museum. Recent orders to send "everything in the map way relating to the United States," took the last copies of the twenty rarest of these county maps.

For eighteen years, this slow discussion of the boundaries, streams, roads and houses of the surface of the United States, has been carried on by Mr. Smith\* and others, with a continually improving organization, and increasing rapidity, until about two-thirds of the well-settled North has been delineated. The fieldwork seems rude to the physicist, engaged in discussing the figure of the earth, and to the chief of a survey of an arc of a meridian. But the results are perfectly satisfactory to the naturalist, the county surveyor, the soldier, and the geologist. The latter finds his canvas ready prepared, and can lay in his picture with comfort and success. When larger areas are to be mapped, then astronomical determinations and trigonometrical adjustments come in place. But the compensations which rectify magnetic work in the field, by skilled hands, carefully plotted afterwards in the office, produce results which favorably compare with the most careful triangulation; and at all events may, if the needs of society call for it, precede, in order of time, just as well as follow, the application of the more accurate methods of the science.

\* R. Pearsall Smith, 517 Minor Street, Philadelphia.

Mr. Fraley spoke to the same subject, describing the early history of the efforts made by citizens of Pennsylvania to obtain an improved State map, and the desirableness of an accurate astronomical and trigonometrical determination of the principal points of the surface. He suggested the expediency of the Secretary preparing, for the next meeting of the Society, the draft of a memorial, which may be presented to the Legislature, during its present session.

Pending nominations Nos. 508 to 519, and new nominations Nos. 520, 521, were read.

The Chairman of the Board of Curators presented the following report, as ordered at the last meeting.

HALL OF THE SOCIETY.

At the last stated meeting, a letter from Dr. Leidy was read, containing a copy of a resolution unanimously passed by the Academy of Natural Sciences, at the meeting of the 23d ultimo, in the following words :

“With the view of facilitating the study of archæology, *Resolved*, That the specimens of antique art, belonging to the Academy, be deposited in the Museum of the American Philosophical Society, provided they shall be returned, on demand, and that the Curators of the Society shall give a receipt for the same to the Curators of the Academy.”

The Curators of the Society have given due consideration to the resolution quoted, and are of opinion that it is highly expedient that the deposit should be accepted, and the specimens of the Academy be added to the collection of the Society, already embracing a considerable number and variety of articles of the “stone age” of this country, and a magnificent collection of those of Mexico and Peru, &c.

The Curators are impressed with the conviction that it is incumbent upon the Society to lend their fostering countenance to this department of science, particularly as there is no institution in the city or State which has paid any attention to the subject, or afforded any facilities for its study or development.

With these views, the Curators beg leave to offer the following resolutions :

1. That they be authorized to receive the deposit of the Academy, and to give the required receipt for the same.
2. That they be authorized to exchange such duplicate specimens

of the collection of the Society as they may deem advantageous in extending and increasing the variety and completeness of the Archæological Cabinet.

On motion, the report was accepted, and the resolutions annexed were adopted.

Mr. Peale then begged leave to make the following additional remarks, with the sanction of his colleagues, upon the subject submitted to the Curators:

The Curators having charge of the Museum and Cabinet of the Society, are aware of its condition, and of the wants of the Society for room, particularly for the Library. They have, therefore, carefully taken the matter into consideration, and offer, respectfully and deferentially, a few remarks as an apology and explanation for the resolution which is appended.

Many books are now, of necessity, placed in the Museum, the cases, however, being entirely unsuited to their proper accommodation. These cases being sparsely occupied by the collections of minerals and fossils, shells, fossils, and minerals are also stowed and packed in various closets, under cases, in their present condition inaccessible to observer or student, and, therefore, in no condition to aid the "*promotion of knowledge.*"

Bottles containing specimens in spirits are drying up, or have entirely evaporated, and a case of insects contains only the reliquiae of the contents, and has almost literally turned to the original dust from which they were created.

With these facts before them, the members of the Society will be able to appreciate the objects in view, and to vote understandingly on the resolution offered.

*Resolved*, That so many of the specimens of the collection of minerals and fossils belonging to the Society, as the Curators may select, be deposited in the Cabinet of the Academy of Natural Sciences, provided, that they shall be returned, on demand, and that the Curators of the Academy shall give a receipt for the same to the Curators of the Society.

Mr. Fraley made honorable mention of the part which the science and zeal of the lamented Prof. Keating had played, in the original collecting of that Cabinet, which was after-

wards made the property of the Society by the liberality of Mr. Poinsett.

The resolution of Mr. Peale was then adopted.

And the Society was adjourned.

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*Stated Meeting, April 1, 1864.*

Present, nineteen members.

Dr. WOOD, President, in the Chair.

A letter of acknowledgment was received from the Liverpool Literary and Philosophical Society, dated February 29, 1864.

Letters of envoi were received from M. the Minister of Public Instruction, dated Paris, November 21st, M. Hector Bossange, dated Paris, February 25, and the Liverpool Literary and Philosophical Society, dated March 17, 1864.

Donations for the Library were announced from M. Troyon of Lausanne, the London Reader, the Literary and Philosophical Societies of Liverpool and of Quebec, Silliman's Journal, the Academy of Natural Sciences, Professor J. C. Cresson, and Dr. Kirkbride of Philadelphia.

The death of Dr. Franklin Bache, at his residence in Spruce Street, on Saturday evening, the 19th ultimo, aged 71 years, was announced by Mr. Fraley, with a feeling tribute to his venerated character and long and varied relations to the Society. On motion of Mr. Fraley, the President, Dr. Wood, was requested to prepare an obituary notice, to be read before the Society.

Mr. Chase continued his remarks upon heat and afterwards illustrated the polarizing action of muscular energy by a magnetic needle held in the hand, but explained the phenomenon as due chiefly, if not solely, to a law governing the mechanical propagation of vibrations.